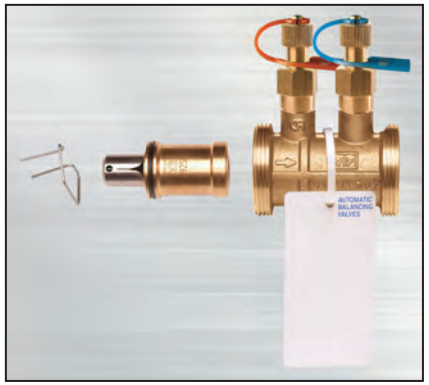
Fitting the Cartridge



Insert the fixed housing end of the cartridge into the valve body in the direction of the flow arrow and press fully into position.

It should be possible to manually depress the spring loaded piston when in position.

Insert the spring clip into the body so the square corners of the spring click into the groove.

CARTRIDGE CODE	
KRR992205.1880	
MIN OPERATING Dp: 14 kPa - 2.0 psi	MAX OPERATING Dp: 240 kPa - 35 psi
NOMINAL FLOWRATE: 0.050 L/s - 0.79 GPM	Tmax: 130˚C - 266˚F

Apply the adhesive data label to the metal tag.

Check that the body o-rings are in place and re-install the body to the pipework ensuring the direction arrow on the body coincides with the direction of flow.

Maintenance

The NIBCO® Automatic Balancing Valves Fig. T1880DU and S1880DU do not require any routine maintenance.

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NIBCO® Installation, Operating and Maintenance Instructions

DZR Brass Automatic Balancing Valve

DZR Brass Automatic Balancing Valve

Automatic balancing valves (ABV) provide constant flow regulation over a wide range of differential pressures and with fluctuating inlet pressures. The valve is a precision manufactured product and should be handled, installed and used with care as detailed in these instructions.

Because the flow cartridge should not be installed in the body prior to commencement of the flushing operation, the valve body and cartridge are supplied separately.

Valve Models

- Fig. T1880DU has female NPT threaded end connections as ANSI/ASME B1.20.1
- Fig. S1880DU has solder end connections as ASME/ANSI B16.22

Valves are supplied with P/T ports fitted.

These instructions relate to the valve body only.

The ABV body is fully assembled and supplied in a plastic bag and comprises:

Body	Two unions
Two pipe connectors	Two o-rings
Two test points	Aluminium tag
Plastic tie	

Limits of Use

The valve rating is shown in the table below and it must be installed in a system where the normal pressure and temperature does not exceed this rating.

The valve is intended for non-shock operating conditions.

Water hammer, impacts, stress loads, corrosive or erosive external environmental elements and the transport of fluids with abrasive properties should be avoided.

Operating Pressure and Temperature

Model	Non-Shock Pressure at Temperature Range	Non-Shock Pressure at Max. Temperature
T1880DU	300 psi from 15˚F(*) to 160˚F	150 psi at 260˚F(*)
S1880DU	125 psi from 15˚F(*) to 175˚F	85 psi at 250˚F(*)

(*) = temperatures apply only when glycol additives used.

Layout and Siting

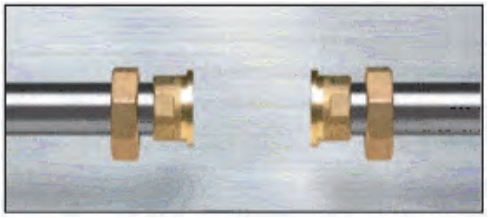
Prior to installation, it should be considered where the valve will be located to allow access for slackening the union nuts and removal of the valve body and insertion of the test probes.

Installation

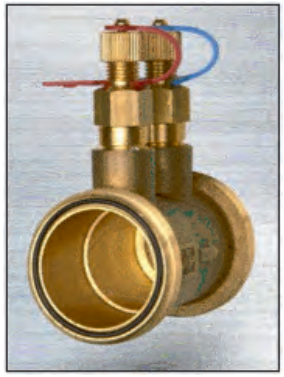
The ABV body is a precision manufactured product and should not be subjected to misuse. The valve should only be unpacked immediately prior to installation to avoid damage or foreign particles entering the valve through the end ports. The valve and adjacent pipework should be checked for cleanliness and freedom from debris before installation. There should be no internal burrs in the pipe to be connected to the valve.

Before proceeding with the installation, the two union nuts and pipe connectors must be removed from the valve body. Ensure the body o-rings do not get damaged or lost. **Under no circumstances should attempts be made to solder a Fig. S1880 ABV into the pipeline without first removing the solder connectors from the body.**

When installing threaded valves, thread sealing liquids or tape may be used on the pipe threads but excessive use should be avoided. The use of hemp-style material should be avoided since this may cause overstressing of the female ends of the valve.



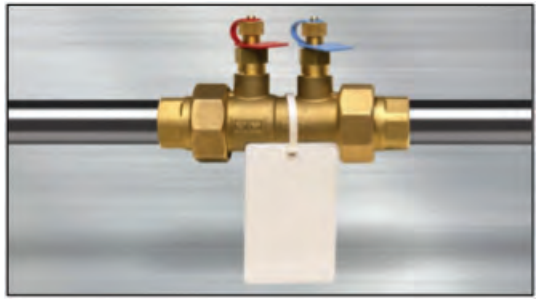
Union nuts fitted to pipes before fitting connectors



After the pipe connectors and union nuts have been fitted to the pipe, the valve body may be assembled. Ensure that the body o-rings are in place and that the arrow on the body is in the same direction as the flow. Hand tighten the union nuts to the body, making sure the valve body and pipework are in line. Using a correctly fitting wrench or spanner, further tighten the union nut ¼ turn. Excessive force is not required.
The valve should be installed in such a way so that the pipework does not subject the body to any torsional, bending or tensile stresses.

Installation Cont.

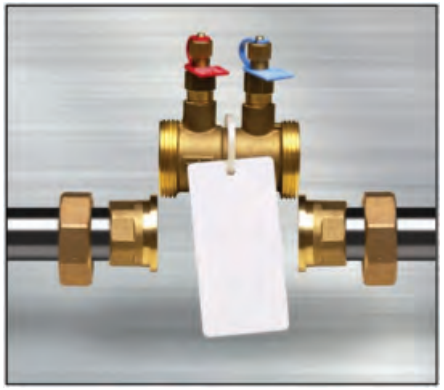
Fit the blank metal tag with the plastic tie provided.



The valve is now ready for the flushing operation.

Fitting the Cartridge

The flow cartridge is supplied separately in a box. Check that the flow data shown on the box label corresponds with the flow requirement of the ABV in the particular location.



Ensure the system is de-pressurised and drained.

Disconnect the union nuts and remove the valve body.

Open the cartridge box and remove the cartridge, spring retainer and data label.

Confirm that the data label corresponds to the box label.